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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Carlo Cognolato

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EXAMINER

HOFFMANN, JOHN M

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

06/15/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/538,897	Applicant(s) COGNOLATO ET AL.	
	Examiner John Hoffmann	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-26 is/are pending in the application.
- 4a) Of the above claim(s) 23-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of Group I, claims 14-22 in the reply filed on 4/22/2009 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 23-26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected election, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/22/2009.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "crown" is indefinite as to its meaning. Examiner notes that he could find no definition/explanation of this term in the specification. Nor is examiner aware of any art-recognized meaning for this term. Thus, one would expect this term to have its plain meaning. However, Examiner could not find a definition in his dictionary that is commensurate with what is shown in applicant's drawings. Applicant's figure 3 shows all of the nozzles being in a single structure 3. But Examiner's dictionary indicate it is

Art Unit: 1791

"the highest part", "a wreath, band or circular ornament for the head", "something resembling a wreath or crown", and among others that clearly are were not intended. It is unclear if the term "crown" is has the scope of "highest part", or if it is directed to a circle of ports, or something else.

Claim 19: there is confusing antecedent basis for "said at least a crown" – claim 17 does not use "at least".

The terms "orifice" and "nozzle" are indefinite as to their meaning. The present specification seems to have switched the meanings for the terms. For example feature 301 is described as an orifice, but 31 is the nozzle. The term "orifice" is conventionally understood to be an opening, i.e. a 2-dimensional feature. But a nozzle is like a tube – something in three dimensions. Still further claim 20 states that the orifice is "exiting in" nozzles. Orifices generally don't exit or otherwise move. And if it were to exit, things exit "out"; "Exiting" and "in" are generally opposite things.

Claim 21: there is no antecedent basis for "the external boundary".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Cain 5922100.

Looking figures 3 and 4: 38 and 92 are of a torus/donut shape. This is clearly commensurate with the definition on page 3 of the present specification. The nozzle can eject substantially any fluid; ejection is method step which does not define structure over that which Cain has. It is noted this not to be interpreted as giving the limitations no weight: each word of all the claims has weight. However the intended use limitations are very broad and fail to define over Cain. The rest of the limitations are clearly met.

Claim 15 is clearly met.

Claim 16: it is deemed that since "crown" appears to encompass a circle of ports, that Cain's circle of ports is also a crown. Again, the fluid limitations of the claim fail to define over Cain.

Claim 17 is met. For example one port of 94 (of figure 4) is circular and is between 92 and crown of 98.

Claim 18: applicant does not define "sectors" nor give any examples of any. Examiner notes that "sector" does have a geometrical meaning: a figure bounded by two radii and the included arc of a circle. A piece of pie. Applicant does not disclose such a shape – beyond the use of the word "sector". The most similar disclosure (in examiner's opinion) is figure 2. However, none has a radius - at most, half have half radii. In other words: applicant's sectors have imaginary radii. Examiner finds that applicant's sectors comprise imaginary boundaries. Therefore the broadest reasonable interpretation of "sector" encompasses sectors having no real (physical) radii. Thus, it is clear that Cain reads on this broadest reasonable interpretation, since one can

Art Unit: 1791

consider the Cain nozzle to have similarly imaginary radii. The inner circle of 38 (torus) would be the minimum radial dimension, and the outer limit the maximum radial dimension.

Claim 19: See figure 3 of Cain: one would easily recognize eight sectors of 45 degrees or sixteen sectors of 22.5 degrees each with 44 and 42 each being one of the claimed sets.

Claim 20: As noted above, the terms: orifice, nozzle, exiting, and "exiting in" are not used in a manner commensurate with most dictionary definitions. Therefore Examiner finds applicant intends these terms to encompass a very broad scope - a scope which encompasses both their traditionally meanings as well as applicant's disclosed embodiment(s). Cain's orifices 188 are the second set of orifices exiting in(to) the second set of nozzles 98. And orifices 186 are the first set of orifices which are exiting into the first set of nozzles 94. 188 is at a steeper (greater) angle than 184. Alternatively, one can consider 98 plus 188 together form a (composite) nozzle (i.e. having two different diameters and a changing angle; nozzles very typically constrict). And all the orifices 172 would be the first set of orifices, and 186 would be the second set.

Claim 21: 112 is the central duct that is exiting into the central nozzle. 108 is the central member therein.

Claim 22: the left most portion is the enlarged portion.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Johnson, O'Brien, Jewell, Borland, Brown and Schutz are cited as being cumulative to Cain. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Primary Examiner
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Application/Control Number: 10/538,897
Art Unit: 1791

Page 7